



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,694	02/03/2005	Kazuki Honda	2005_0064A	8538
52349	7590	05/02/2007	EXAMINER	
WENDEROTH, LIND & PONACK L.L.P. 2033 K. STREET, NW SUITE 800 WASHINGTON, DC 20006				LUKS, JEREMY AUSTIN
ART UNIT		PAPER NUMBER		
		2837		
MAIL DATE		DELIVERY MODE		
		05/02/2007		
		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/523,694	HONDA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jeremy Luks	2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 15 February 2007.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 15-28 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 15-28 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 15-18, 22-24 and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Czerwinski (2003/0068064). Czerwinski teaches a suspension device (Figures 1 and 2, #15) for spanning between an inner member (17) and an outer member (16) arranged outwardly of the inner member (17), said suspension device (15) comprising: a plurality of roll sections (30) configured to span between the inner member (17) and the outer member (16) and being arranged in a loop; and a plurality of boundary sections (area between sections #30, Page 5, [0041, [0044]]), each of said boundary sections (area between sections #30) being arranged between an adjacent pair of said roll sections (30), such that said roll sections (30) and said boundary sections (area between sections #30) are arranged so as to form a continuously alternating pattern of said roll sections (30) and said boundary sections (area between sections #30), wherein the continuously alternating pattern of said roll sections (30) and said boundary sections (area between sections #30) forms a continuous closed loop having a continuous surface, wherein each of said roll sections (30) includes an inner-

connecting edge (could be the inner edge of #30) configured to connect to the inner member (17) and an outer-connecting edge (could be the outer edge of 30) configured to connect to the outer member (16), wherein each of said roll sections (30) constitutes a semi-cylindrical curved surface spanning from said inner-connecting edge to said outer-connecting edge, and wherein for each of said roll sections (30), at least one of said inner-connecting edge and said outer-connecting edge constitutes a straight edge (Connecting edges of #30 in Figure 2 appear to be a straight edge); wherein said roll sections (30) are circumferentially arranged in a continuous closed loop, and said roll sections (30) are arranged at regular intervals; further comprising: a frame attaching part (16) connected to a continuous outer loop formed by said outer-connecting edges (outer member 16 is formed by an outer edge of #30) of said roll sections (30), said frame attaching part (16) being configured to connect to a frame (11), wherein any non-continuous parts of said inner-connecting edges of said roll (30) sections are trimmed; further comprising: a vibration system attaching part (17) connected to a continuous inner loop formed by said inner-connecting edges (inner member #17 is formed by an outer edge of #30) of said roll sections (30), said vibration system attaching part (17) being configured to connect to an outer peripheral part (19) of a diaphragm (18) coupled with a voice coil (24), wherein any non-continuous parts of said outer-connecting edges of said roll sections (30) are trimmed; and said frame attaching part (16) for supporting a magnetic circuit and a vibration system (Page 5, [0041]).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 19 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Czerwinski (2003/0068064). Czerwinski is relied upon for the reasons and disclosure set forth above. Czerwinski further teaches an even number of roll sections (Figure 1a, #12). Czerwinski fails to teach wherein an odd number of the roll sections are disposed. However, it would have been an obvious matter of design choice to employ an odd number of roll sections, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. St. Regis Paper Co. v. Bemis Co., 193 USPQ 8.

3. Claims 20, 21, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Czerwinski (2003/0068064) in view of Saiki (6,208,237). Czerwinski is relied upon for the reasons and disclosure set forth above. Czerwinski further teaches an even number of roll sections (Figure 1a, #12). Czerwinski fails to teach first and second suspension devices arranged in a covering relation with respect to each other; and wherein the first and second suspension devices are circumferentially offset relative to one another by 1/2 of a width of one of said roll sections. Saiki teaches first and second suspension devices (Figure 14-16, # 63 and 64) arranged in a covering relation with respect to each other; wherein the first and second suspension devices (63

Art Unit: 2837

and 64) are circumferentially offset relative to one another (Col. 15, Lines 7-11). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Czerwinski, with the apparatus of Saiki to ensure that the moving parts vibrate stably. It would have been obvious to one of ordinary skill in the art at the time the invention was made to rotate the suspension by 1/2 of a width of the roll section, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working range involves only routine skill in the art. In re Aller, 105 USPQ 233. Further, it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.

#### *Response to Arguments*

4. Applicant's arguments with respect to claims 15-28 have been considered but are moot in view of the new ground(s) of rejection. The Examiner considers the obvious combination of Czerwinski and Saiki to teach all of the limitations as claimed by Applicant.

#### *Conclusion*

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

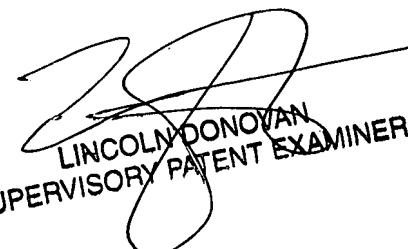
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy Luks whose telephone number is (571) 272-2707. The examiner can normally be reached on Monday-Thursday 8:30-6:00, and alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2837

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeremy Luks  
Patent Examiner  
Art Unit 2837  
Class 181

  
LINCOLN DONOVAN  
SUPERVISORY PATENT EXAMINER